FEEDING, HEALTH AND MOBILITY: A LOOK INSIDE THE LIFE OF ORDINARY PEOPLE IN IMPERIAL ROME

Ph.D. Student: Sara Varano / *Supervisor*: Prof. Olga Rickards

Cycle: XXXI *A.Y.*: 2017/2018

In the last decades, archeologists unearthed thousands of burials in the Roman *Suburbium* dated back to the Imperial Age (I-III centuries CE), when the city of Rome reached its greatest demographic and urban expansion. Notwithstanding the huge amount of literary sources about Romans, to date very few biomolecular data have been published about the leading fraction of population. Moreover, molecular characterization of Rome inhabitants could represent a valuable proxy in the reconstruction of the lifestyle and health conditions of the greatest City of the Ancient World.

The cooperation with "Servizio di Antropologia, Soprintendenza Speciale Archeologia, Belle Arti e Paesaggio di Roma, Rome, Italy" allows us to consider a wide sample of human skeletal remains pertaining to several necropoleis scattered throughout the *Suburbium*.

The molecular characterization has been first devoted to Stable Isotopes Analysis from bone collagen in order to dissect the ancient diet. In fact the diet of the ordinary Roman people has not been widely investigated till now and its reconstruction could provide information about subsistence economy and social organization because dietary patterns could be hypothesized as one of the most retained markers of the cultural identity of a population. The transition from the Imperial Age to the early Medieval Period has been also investigated through isotope evaluation of Late Romans and Medieval communities. In fact, dramatic changes occurred between the late Empire and the early Middle Ages, leading to a crisis of agricultural economics, and the closure of the most important trade routes. These new scenarios influenced the lifestyles, living conditions and health status of the Romans.

Isotopic analysis has been also used to support palaeopathological evaluation: the influence of nutritional and metabolic status on the use of different elemental isotopes in proteins composition leads us to deepen the knowledge about possible correlations between isotopic signatures and nutritional, metabolic and pathological alterations.

Moreover, the analysis of oxygen stable isotopes in tooth enamel will be employed to obtain information about the geographic origin of some people whose dietary patterns could support hypothesis related to foreign origin.

Selected samples will be also submitted to genomic analysis in order to support isotopes speculations and to aid the differential diagnosis in morphological evaluated pathological phenotypes.

In conclusion, this integrated approaches will contribute to a holistic characterization of the Imperial Roman people providing helpful information related the everyday life and will be a precious and relevant tool for historians and archaeologists in the depiction of ancient Rome.